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During the year just past

Production emphasis gives way to long-time planning for better rural living—programs expanded—more funds, more workers—more training workshops—more 4-H Club work.

■ The trend has changed. Production, of paramount importance during the war years and postwar adjustment, has given place among American farmers to the real practical problems of living on the farm. Rural Americans last year asked more extension aid in land-use planning, farm and home planning, home remodeling, soil conservation. More requests have come in for help in improving facilities for rural education, recreation, worship, and health. Farm women have asked questions about nutritious meals and freezing foods for home and community lockers. Better marketing of farm products, the economic outlook for agriculture, and more information about economic problems and public policy are high on the list of things farm people want to know.

Veterans home from the battle front continued to swamp extension offices for answers to the problem: "Should I farm? If so, where, when, and how?" With the veterans came many GI war brides who have been helped by home demonstration activities to take their places in American communities.

A Heap of Work

New and expanded programs called for more work. Adding up some of the usual chores, it is found that county workers alone made nearly 3½ million farm and home visits. They advised the 9 million who called at the office and also answered the telephone 7½ million times. Meetings called for discussing current problems had a total attendance of 52 million men, women, and youth.

As evidence of their high interest in more information, the attendance at meetings was 14 percent higher than during the previous year. On the average, agents spent 61 percent of their time in the field with farm families and 39 percent handling office matters.

4-H Club members learn to appreciate and understand our American way of life and the world as a whole.



Who Does It?

The total personnel in the Cooperative Extension Service grew to 11,000, with 76 percent working in the counties. Practically all agricultural counties had an agricultural agent, and many had assistants. Altogether there were 4,767 agricultural agents and 3,176 home demonstration agents. Most of these agents also worked with young people; but, in addition, 558 4-H Club agents worked exclusively

with 4-H Clubs. Twenty-three percent of the total personnel are on the State staffs with headquarters at land-grant colleges, and 1 percent are on the Federal Extension staff with headquarters in Washington, D. C.

Although the turn-over among extension workers has been high during recent years, 40 percent of all county extension workers have served 10 years or more. Most extension workers have a good college education and some practical farm or home economic training.

With replacements high and larger

county staffs, in-service training assumed an even more important place in 1947. Apprenticeship, preservice or induction training for new employees was held in more than half of the States. New agents got special training in the philosophy, background, and methods of extension. Experienced agents met more often in workshops and conferences to analyze their jobs and study particular problems.

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The feed- and food-saving job

M. L. WILSON, Director, Cooperative Extension Service

■ It was no surprise to extension workers who have followed developments abroad to hear announcement of the voluntary food conservation program which is now under way. All extension people have been kept advised as to week-to-week developments. Extension services in many States are out in front working with farmers in reaching the over-all objectives of grain conservation through efficient feeding, culling of unprofitable producers, and many other proposals that apply in one way or another, depending on the regional and local situation. In a memorandum to me, Secretary of Agriculture Clinton P. Anderson especially stressed the importance of saving grain through most efficient feeding of grain to livestock. He urged that the extension services help farmers in this objective.

Committee Set Up

Charles Luckman, chairman, Citizens Food Committee, and Secretary Anderson have asked all land-grant college and university presidents to cooperate by setting up State livestock feed conservation committees to serve for the period of the emergency. In addition to research and extension members of the college staffs, farm organizations, feed dealers, and manufacturers were to be on these committees. Specific conservation practice recommendations determined by the committee were to be brought to the attention of individual farmers. County agents were asked to take the lead in educational work, using all their established outlets to get the job done. Through their membership on USDA councils, county agents were asked to make the recommendations available to all Federal agencies on the council so as to insure teamwork and a unified program within the county. By the time this article appears in print the program will no doubt be under way in most counties.

On the home economics front, too, Extension is being relied on. Miss Katharine Fisher, who is in charge of the Consumers Service Section of the Citizens Food Committee, on Oc-

tober 17 said to an extension audience in the Department:

"This program does not demand that people eat less well. It only asks that they eat more selectively. We know that American families will rise to their patriotism and practical and cooperative instincts in giving full support to this program. They must, however, have some place to look to where they can get practical home helps. The committee is preparing such practical helps in the way of recipes which will help homemakers give their families good things to eat in spite of the shortage of food. No group is more influential than the Extension Service in giving support to an effort like the citizens' food program. We need your help in getting our information to homemakers and hope you will help them adapt the information we give out to the regions and districts in which they work. We would like you to feel free to make such adaptations as are locally practical. We are asking the help of all of you to do everything you can in support of this practical but voluntary food-saving program."

Why is the food conservation program so important? We don't need new spectacles or see very far ahead to understand that the present emergency in food and feed conservation is a tremendous undertaking. This world-wide food emergency is proof that the war has not yet been won. We are all aware that having scarcity of food in Europe in its present degree presents us with a possibility that the Four Horsemen right now are at the edges of Europe. So, trying to get that extra 100 million bushels of wheat which the people of this country have been asked to do is a challenge to our patriotism and our devotion to the principles of democracy and Christian charity.

Consume Less Food

One of the best statements on the situation I have heard was by Congressman Clifford Hope, of Kansas, at the dedication of the School of Nutrition at Cornell on October 10. In summary, Mr. Hope said that every citizen concerned about the future of

democracy in the world should be concerned about getting food to Europe this winter. Mr. Hope said that in this country we are eating 17 percent more food *per capita* than we did in the prewar period. We ought to at least be satisfied to consume only 5 or 10 percent more, and in that way we would give Europe the other 7 or 12 percent, which would take care of the extra 100 million bushels of grain needed abroad.

It is encouraging to find leaders of both major political faiths in this country subscribe wholeheartedly to the food-saving effort. President Truman is most sincere in the appeal he has made to the American people. This is a situation like the one which faced us in 1940 and through the war years. It calls for cooperation by every patriotic citizen.

Extension people will recognize in the activities of the Food Conservation Committee that it is based on voluntary appeal, the kind of appeal and cooperation with which we in the Extension Service are so familiar. There are no wartime powers. The appeal is to citizens, and many leading citizens' groups have taken action.

Churches Support Activity

I was most favorably impressed by reports of the action taken by leading church bodies. They will be an important element in shaping public opinion in support of food conservation. Thus far the churches have been the most outspoken. I suspect that they will give great support to the activity until at least the next crop season. I would also suspect that the support given by the churches will be very real and sincere. If that were not the case I would feel that in my generation Christian teaching would not have been successful. Personally, I think that the American people will do whatever called upon to do. They will do so on the one hand with appreciation of the bounty which Nature and our way of life have given us. They will, on the other hand, dig deep as the needs for Christian charity with people in other parts of the world become so obvious.

Experimenting with leadership training programs

R. W. ROSKELLEY, Extension Sociologist, Utah

■ One of the most important questions which the Agricultural Extension Service faces in extending the effectiveness of its program is: What kind of leadership training can lay leaders be given that will help them do their work more effectively?

The Agricultural Extension Service has given much consideration to leadership training. A great proportion of the efforts, however, have been limited to a few of the many phases in the field. Leadership training for extension work may be classified into nine general areas, including: (1) Production, protection, conservation, and creation; (2) kinds of organizations and methods of developing them; (3) operations of organizations; (4) functional relationships within and between organizations; (5) public relations; (6) building programs; (7) the control and motivation of human behavior; (8) social, economic, and political problems; (9) family and community relationships.

Leadership training in production, conservation, and creation has been given more attention by the Extension Service than in any of the other fields. Area No. 7, the control and motivation of human behavior, is one field in which very little leadership training has been done. Two experiments in this field by rural sociologist and extension workers have been developed. They are suggestive of work for the future.

Colorado Makes Study of Leaders

The first experiment was in the State of Colorado in 1942. A group of 27 lay leaders from one county representing all phases of the extension program were selected to participate in an experimental training program. This program attempted the following objectives: First, to have the lay leaders discover and define the main problems which handicapped them in doing their work; second, find the answers to some of these problems; third, develop a program of leadership training in the light of the prob-

lems as to methods, techniques, and subject matter; fourth, ascertain how much the ability of leaders can be increased in a relatively short time by a course in leadership training in their fields; fifth, evaluate the importance of leadership training in the minds of the people. This study is reported in the bulletin, *Leadership Training in a War Economy*, by R. W. Roskelley, Paul M. Berry, L. V. Toyne, No. 214, Colorado Agricultural Experiment Station, Fort Collins, Colo.

Washington Lists Similar Problems

The second experiment was done in a county in the State of Washington in the fall of 1946. Twenty-two community and county workers participated in a training program which was reported in the bulletin, *"An Experiment in Leadership Training"* (in Lincoln County—Fall, 1946) by R. W. Roskelley, Ruth Radir, Gladys Anderson; Washington Agricultural Extension Service bulletin.

Philosophy and Methods

The philosophy and methods of procedure were very similar in both cases. Preliminary contacts were made with a number of leaders. These contacts provided an opportunity for leaders to begin to critically analyze and define their problems. It gave them an opportunity to differentiate between symptoms and causes. They had difficulty, but by use of questions and discussion methods at the first general meeting it was possible to get the lay leaders to mutually agree on the problems which presented the greatest obstacles and handicaps in the successful accomplishment of Extension Service programs. They were: How to overcome resistance to new ideas and programs; how to choose and develop potential leaders; how to develop community awareness of the need for a particular program; how to stimulate a group to carry a project to completion; how to exercise initiative without being bossy; how to give recognition to those who do a job well; how to delegate authority without los-

ing control of a program; what constitutes a good program and how to develop one; what are the characteristics of a good leader; and what kinds of meetings are necessary in a community to put over a program. This last item was considered only in Washington.

Many of the leaders were at a loss as to why they could not succeed better than they had. Many of them had difficulty in naming more than one or two problems. There was much confusion in their minds between symptoms and causes.

A number of other problems were listed, but these listed were uniformly agreed upon and considered most important.

One of the significant things about this list of problems is that they all deal with social and psychological factors. Another is the fact that the listing of problems by lay leaders in Colorado in 1942 were almost identical to those listed by comparable leaders in the State of Washington in 1947.

Special Training Follows Findings

We held a training program that covered four periods of about 2 hours each. An effort was made to answer each of the questions in as comprehensive and as clear a way as possible. Many of the techniques used in effective teaching were applied. Suggested answers and illustrations to each of the problems were discussed in terms of commodity production and home management problems that in the past have constituted the core of the Extensive Service program.

Of What Value?

About 3 weeks following the completion of the Colorado experiment, those participating were asked to evaluate the training program in terms of the extent to which it increased their understanding and ability to answer the questions listed.

In Washington those participating were asked to evaluate the results of the training program at the close of the last session. Those responsible for conducting the experiment were not present when the people evaluated what had been done. Neither did those who evaluated the experiment sign their names to their scoring sheets. The table shows the results of these evaluations.

Problems Listed by Lay Extension Leaders in Colorado and in Washington and the Percentage of People Reporting the Amount of Help They Received

| Problems listed by leaders | Percentage reporting help received | | | | | | | | |
|---|------------------------------------|----------------|----------|------|------------------------------|----------------|----------|-----------|------|
| | Colorado Experiment (1942) | | | | Washington Experiment (1946) | | | | |
| | A great deal | Quite a little | A little | None | A great deal | Quite a little | A little | Undecided | None |
| Increased understanding of how to— | | | | | | | | | |
| 1. Overcome resistance to new ideas and programs..... | 36 | 55 | 9 | — | 15 | 39 | 39 | 7 | — |
| 2. Choose and develop leaders..... | 37 | 55 | 18 | — | 30 | 54 | 8 | 8 | — |
| 3. Develop community awareness to the need for a program..... | 9 | 82 | 9 | — | 15 | 64 | 15 | 8 | — |
| 4. Stimulate a group to carry a problem to completion..... | 28 | 54 | 9 | 9 | 15 | 54 | 23 | 8 | — |
| 5. Exercise initiative without being bossy..... | 36 | 46 | 18 | — | 31 | 69 | — | — | — |
| 6. Give recognition to those who do a job well..... | 46 | 54 | — | — | 39 | 54 | 7 | — | — |
| 7. Delegate authority without losing control..... | 18 | 64 | 9 | 9 | 15 | 39 | 46 | — | — |
| 8. Judge a good program..... | 50 | 50 | — | — | 46 | 46 | 8 | — | — |
| 9. Recognize characteristics of a good leader..... | 55 | 45 | — | — | 31 | 46 | 8 | 15 | — |
| 10. Kinds of meetings necessary in a community to put over a program..... | Not considered in Colorado. | | | | 31 | 46 | 23 | — | — |

Those participating were asked their attitude toward the amount of time the Cooperative Extension Service should devote to leadership training in the area of motivation and control of human behavior. In Colorado 83 percent indicated more time should be given, and 17 percent indicated that the present amount of time was satisfactory. In Washington 85 percent indicated more time should be given, and 15 percent that the present amount of time was satisfactory.

One of the significant results of both experiments is their similarity in results. Another is the fact that prac-

tically all of the people who started with the experiment carried through to completion, thus suggesting positive interest.

In Colorado the county agricultural agent reported that those who participated in the leadership training program functioned much more effectively after the training than before. No evaluation of follow-up effects have been made in Washington.

Both experiments suggest that people want help in the fields reported in this study and that help can be given.

Missouri goes forward with balanced farming

■ Balanced farming plans are set up and going on 15,000 Missouri farms. This report was made by the Missouri University College of Agriculture in July to the State Advisory Committee on Extension Work. Representing the farm people of the

State, this committee was in session 2 days. They heard reports and made recommendations.

Six months ago the committee had urged the Extension Service to form more balanced farming rings or associations like the ones in Carroll

County. On this point the college now reports 19 such rings in operation and 20 more to be organized soon.

New demonstrations have been set up in counties where they were most needed. Nearly all counties in the State are having tours of farms showing results of the balanced farming system.

Bankers and businessmen have shown a steadily increasing interest in farm and home planning and are giving special credit terms to farmers using this system.

Thirty-eight State extension services have sent representatives to study the system as now used by Missouri farm families. Kansas and North Carolina have set up associations similar to those in Missouri.

All itinerant instructors in vocational agriculture have attended balanced farming training schools given by extension specialists and are passing this instruction on to veterans in their on-the-farm training.

County extension workers encourage all families taking up this work to make their plans in family councils, providing for home improvement as well as more efficient farming.

■ As many as 80 different varieties of wild flowers grow native in Van Zandt County, Tex., according to Maggie Peach, home demonstration agent.

At a showing in the county courthouse, 18 exhibits of wild flowers were brought in by 10 home demonstration clubs. One club had 51 varieties, another had 52, and the largest number by one club included 64 different varieties.

Men passers-by showed an appreciative interest in this attempt by the clubwomen to place a greater value on "the everyday things" around the farm homes.

■ Four 4-H Club members of Addison County, Vt., represented the 4-H Clubs of the United States at the Quebec 4-H Congress held at Mount Royal Hotel in Montreal, August 10-13.

While in Montreal the two boys and two girls were the guests of the Canadian 4-H Club. They attended meetings of the 4-H Congress and saw the sights in and around Montreal.



Flashes

FROM SCIENCE FRONTIERS

A few hints of what's in the offing as a result of scientific research in the U. S. Department of Agriculture that may be of interest to extension workers, as seen by Marion Julia Drown, Agricultural Research Administration, U. S. Department of Agriculture.

Simple Test for Bee Disease

A small vial, a few drops of milk, and some water are all that is needed for a test that shows in 15 minutes whether a bee colony is infected with American foulbrood. This is a serious bee disease caused by a bacterium, *Bacillus larvae*.

To make the test requires no technical training. It is based on the findings of a bacteriologist of the Bureau of Entomology and Plant Quarantine that when a bee larva which has died from American foulbrood is dropped into a vial of milky water, the body of the diseased larva causes the liquid to become clear within 15 minutes. This is because the bacteria causing the disease produce enzymes which decompose milk. When the bee larva has died from some other cause, there is no clearing of the milk.

Skim-milk powder is just as satisfactory for the test as fresh milk, and enough milk powder to run 100 tests costs only a few cents. Dead larvae from several parts of the colony should be tested to make sure the presence of the disease is detected as early as possible.

Agriculture-Industry Hook-up

■ Many of the Nation's business enterprises are built on products of the soil. Food and fiber industries, of course, come readily to mind, but in addition many widely grown crops are used as raw materials by manufacturers of apparently unrelated products. An example of the latter is the drug rutin, which is obtained from buckwheat plants. Dependent on livestock raising is the veterinary biologic industry, which now prepares more than 70 products for use in preventing and treating animal diseases. Most of these serums and other biologicals are derived from animals or their products.

Agricultural research in the De-

partment of Agriculture and cooperating States is often carried only to the point where it can be turned over to industry or to the farmer. The many insecticides and worm medicines developed by the Bureaus of Entomology and Plant Quarantine and of Animal Industry are manufactured and sold by chemical firms which obtain the formulas and methods of use from the bureaus. When practical results of research have been proved to the satisfaction of the scientists, they become available to anyone who thinks he can make good use of them.

An 11-page mimeographed paper entitled "Farm Science in Industry," by D. S. Burch, gives many more examples of the value of agricultural research to business, big and little. These mimeographs are available in small quantities at the Agricultural Research Administration, Washington 25, D. C.

The Ever-Versatile Soybean

■ The "miracle bean" of the war has retired somewhat from the limelight; but it is still presenting new possibilities to the scientists, who continue to study it. The latest results of research at the Northern Regional Research Laboratory, Peoria, Ill., include the development of a formula for making an adhesive from soybean protein that is already in use by a manufacturer of shotgun-shell casings, taking the place of casein adhesive.

Other studies at the laboratory have resulted in a method for the precise determination of the composition of oils and oilseeds and a process for separating soybean oil into two fractions, each of which is better than the whole oil for certain purposes. A great improvement in soybean-oil paints has also been made. Another important development is a paste containing pigments and driers so mixed

that farmers can prepare a paint at relatively low cost by merely adding soybean oil to it. This product is now on the market.

Food uses of soybeans, as well as industrial uses, are under consideration at the laboratory. One of the studies has established an effective method for the fermentation of soybeans for making soya sauce. The making of this sauce is a household art in China, where recipes and strains of ferments used in the process are handed down from generation to generation. The laboratory has found a combination of molds, yeasts, and bacteria that can be depended on to yield a high-quality soya sauce. Strains of the micro-organisms from the laboratory's culture collection are being made available to the industry.

Pasture-and-Crop Rotations Outyield Permanent Pasture

■ A cooperative pasture experiment begun in 1943 already indicates that a 5-year crop-and-pasture rotation system will provide more nutrients for dairy cattle than permanent pasture on the same acreage. The Bureaus of Dairy Industry and Plant Industry, Soils, and Agricultural Engineering are conducting the experiment at Beltsville, Md., on six adjoining 4-acre fields. One field was left in the original permanent Kentucky bluegrass and white clover pasture as a basis for comparison. On the other fields, the rotation calls for corn for silage the first year, wheat for grain the second year, and grasses and legumes for pasture and for hay and pasture the last 3 years. Each field was started at a different stage of the rotation. Fertilizer and manure are applied at the same rate to all six fields.

During the 1946 season the yields per acre of total digestible nutrients for dairy cattle were as follows: Permanent bluegrass pasture, 2,248 pounds; corn for silage, 2,676 pounds; wheat for grain and grazing, 2,563 pounds; first-year hay and pasture, 2,746 pounds; second-year hay and pasture, 2,575 pounds; and third-year hay and pasture, 2,650 pounds. In addition to furnishing a higher total yield than the permanent pasture, the crops in the rotation furnished good grazing during July and August when the permanent pasture was short.

Accent on health

Arkansas home demonstration clubs review health accomplishments

■ Complying with a request from home demonstration clubs in Arkansas, the extension health education specialist, Helen Robinson, drew up a suggested health program to be put into practice by rural families and rural communities wishing to improve their health standards.

The family program has 10 points including a physical examination once a year, a dental examination twice a year, a tuberculin test, immunizations against contagious diseases, care for expectant mothers, and improved sanitation and medical facilities in the home.

The community program has four major provisions: to survey sanitation facilities, need for doctors and hospitals, and how people finance medical care; to have a health leader in each home demonstration club to tell people in the community about clinics being brought to the county; to provide community-sponsored medical kits containing sheets, towels, hot water bottles, and the like, for loan to families with illness; and to organize Red Cross home nursing and first-aid courses.

Much has already been accomplished. For instance, Sharp County obtained a large mobile X-ray unit from the Tuberculosis Association. Mrs. Turnmire Carroll, formerly home demonstration agent in that county, reported that for 2 days in August free chest X-rays were given. The women got permission to use school buses to transport people to the clinic. Ministers, teachers, business people, and school children helped publicize the clinic.

In Pope County, clubwomen are successfully reaching a goal to have a home nursing class taught within reach of every clubwoman and an immunization for every preschool child, reports Home Demonstration Agent Mabel Bussell. At one time 6 classes were in progress with 145 homemakers enrolled. They were taught by a registered Red Cross nurse. Among the first preschool clinics were those at Center Valley, Harmony, Prairie Grove, Dover, Hatley, and New Hope.

More than 30 Montgomery County

farm women took similar Red Cross home nursing courses sponsored by the Norman and Oden clubs.

A malaria-control program has been the objective of rural people of Little River County. In carrying it out home demonstration women were helped by the Farm Bureau, 4-H Clubs, Foreman Junior Chamber of Commerce, Ash-down Rotary Club, and 30 justices of the peace. Results at the close of 1946 showed nearly 70 percent of the houses in the county had been sprayed with DDT to control mosquitoes and flies. County Agent C. M. Lamkin reported this percentage represented 1,810 homes. Doctors disclosed the program decreased the number of malaria cases, especially among Negro families.

Thirty-two community centers at which 925 dogs were vaccinated for prevention of rabies have been one phase of Polk County's health program this year. The State's veterinarian's office cooperated with the Extension Service in the successful program.

Being 12 miles from town and even farther from a hospital lays the health problem squarely in the laps of citizens in Joplin community of Mont-

gomery County. Ola Walton, home demonstration agent, applauds the Joplin home demonstration club for equipping a sick room kit for use by anyone in the community.

Getting a Hospital

When inhabitants in and about Rogers decided to construct a hospital, 11 home demonstration clubs responded readily with financial contributions. They have given \$1,485.90, raised through pie suppers, dinners served to neighbors, a circus, and solicited donations. Avoca Club led with \$458.50.

After reading through news articles of the need for pillows at the State Hospital in Little Rock, members of the Broadview home demonstration club, Lonoke County, donated 25. Each woman made a tick and filled it with feathers from a 45-pound feather bed no longer being used.

To keep morale high in the Arkansas Children's Home and Hospital, home demonstration club women continually give quilts, toys, and home-canned foods. When next Christmas rolls around, a box will come to the hospital from Dallas County, predicts Home Demonstration Agent Jean Campbell. It will be filled with toys—one from each member of the Round Hill home demonstration club. Their last gift was a hand-pieced quilt.

Mount Ida and Joplin Clubs have given eight quilts to the hospital.

Engineers for a day

■ It was like a "grand opening" when Rutgers University's agricultural engineering department held its "Day in College" for vocational agricultural teachers, county farm and 4-H agents, and power company representatives recently.

"Ag" engineering has come up in the world at Rutgers during the last few months. The department, which Extension Agricultural Engineer W. C. Krueger ran as a one-man show during the war, was housed in a small building on the College of Agriculture campus. If it were not for the campus, you might easily have mistaken the office building for a real estate dealer's headquarters on a suburban subdivision.

But when Harry E. Besley came

back from 5 years in the Army, the college moved the department out to a group of buildings on the college farm and added two more members to the staff. The buildings used to be maintenance headquarters for the CCC in New Jersey. They're off the beaten path, surrounded by trees, and the area seems almost like a separate little campus in itself. Altogether, they provide more than 22,000 feet of floor space instead of the old set-up's 10,000. There are two large buildings, one smaller service building, a metal workshop, teaching laboratory, and a museum of antique farm machinery.

The "Day in College" was the first agricultural engineering event in the department's new quarters. The

group of about 60 county agents, 4-H Club agents, vo-ag teachers, and power company representatives gathered at 10 a. m. and stayed for the day.

Among the speakers was Mardis O. Whited, of the Atlantic City Electric Company, who told the group that many New Jersey farmers are trying to operate many machines and appliances on circuits originally intended only to supply lights for the farm home. This causes lack of efficiency and creates a fire hazard, he pointed out.

August J. Balliet of the same company reported that 96 percent of New Jersey farms are electrified, and electricity will soon be available to all farmers who want it.

W. C. Krueger told the group about

trends in poultry house and dairy barn construction, and Charles H. Reed, of the department, discussed principles and problems of farm sewage disposal.

Harry E. Besley, head of the department, presided. Others who took part in the program were Owen E. Kiser, assistant professor of vocational education in New Jersey, and Charles A. Thompson, State leader of county agents.

Intermission in the middle of the afternoon gave the guests an opportunity to visit the machinery museum and inspect the other buildings of the agricultural engineering plant. In addition to the specific topics discussed, the day gave the group an opportunity to see what the depart-

ment has to offer in the way of services since its enlargement and general face lifting.

Much favorable reaction was received from the meeting. Typical of the comments was that of William G. McIntyre, assistant agricultural agent in Hunterdon County, who wrote: "The Agricultural Engineering Conference was another high light for this agent. I was quite impressed with the engineering department's new location."

And from Henry H. White, agricultural agent in Cape May County: "I received much benefit by attending the two meetings at the college—plane dusting and agricultural engineering. Mr. Krueger deserves much credit for the way he handles his line, in my opinion."

Puerto Rican boys eagerly face the "Mike"

Interviews with Puerto Rico 4-H members at camp in the eastern part of the island are recorded for broadcasting later. Nieves Díaz, assistant extension editor, conducts the interview. Mr. Díaz says: "We think we get the best results in 4-H programs when we use out-of-the-studio broadcasts, using recording equipment. The boys and girls living in

farm areas that are not enrolled in any club, when they hear their friends speaking over the radio, feel anxious to join the 4-H crowd. Families of the 4-H members that are taking part in the camps are better convinced of the benefits of the movement. And the people in general get acquainted with the 4-H project and the high ideals involved in this kind of work."



■ A Negro agricultural building was recently dedicated in Pittsboro, Chatham County, to the memory of Neil Alexander Bailey, the first Negro to be employed as a county agent in North Carolina. It provides office space for Chatham County Negro workers, Joseph A. Turner, county agent, and Lovie M. Smith, home demonstration agent.

Erected at a cost of approximately \$4,900, a debt of only \$954 remains outstanding on the edifice. Practically all funds for its erection came from the Negroes in Chatham County.

A permanent national camp

Approval for the plan of establishing a permanent national 4-H Club camp in or near Washington, D. C., was given by the Committee on Extension Organization and Policy meeting in Washington on August 31. The subcommittee on 4-H Club work, together with the Federal Office of Cooperative Extension Work, are making a preliminary study of the possible sites and resources. With the exception of the war years, the National 4-H Club Camp has been held annually since 1927. The camp site has been in different places, sometimes on the Department of Agriculture grounds and sometimes in nearby Potomac Park. Last year the camp was held in wartime barracks that had been vacated.

Marginal notes on the year's report

Soil Conservation

Extension teaching had a hand in nearly everyone of the 3½ million operating units in the 1,586 soil conservation districts in the United States. Today these districts make up more than half of the farm land of our Nation.

More than half a million farmers in soil conservation districts were assisted with education for organization and operation of the districts. Two hundred and ninety-five new soil conservation districts were organized.

Extension workers advised nearly half a million farmers on land-use problems and another half million on the use of crop rotations. More than half a million profited from county extension workers' advice on the use of cover or green-manure crops.

Farm and Home Planning

In Missouri, 108 of the 114 counties held farm and home planning demonstrations—"balanced farming" they called it. These demonstrations take the form of a clinic. The entire farming program is analyzed, and plans are made for desirable adjustment. Organization, production, needs for the family food supply, and the use of available capital and income are all considered in making the plan.

More About the Home

More than 3 million homemakers changed to better homemaking practices because of extension teachings. Membership in 50,000 home demonstration clubs has reached 1,162,000. More than 400,000 volunteer adult women leaders were trained to carry on the work in their own communities and clubs.

Twenty States have a well-developed program in parent education, with 200,000 enrolled in discussion groups.

Almost 2 million families participated in some phase of food preservation



under Extension's direction.

Landscaping and home beautification demonstrations were given by home demonstration agents in 130 Texas counties. Nearly 30,000 farm people attended the demonstrations.

Marketing

Twenty-six States already have submitted projects to be carried on under the Research and Marketing Act of 1946. Emphasis is being given to these activities which deal with improvement of quality, emergency situations, disposal of surpluses, expanding markets, and improvement of marketing methods and facilities to reduce loss and inefficiency and increase producer returns.

In New Jersey the Extension Service inaugurated a project of early morning picking and direct delivery of sweet corn to markets. Consumers paid better prices for corn served 6 to 12 hours after cutting.

Extension work in egg marketing provided the educational leadership for Mississippi farmers to develop and organize a cooperative egg-marketing program. This cooperative maintains five truck routes which pick up eggs at the farms. By marketing eggs promptly, farmers find a better market and obtain higher prices for them. Return loads of feed are carried to the producers if they desire to buy through their cooperative.

During the big grain harvest there was need for more grain graders. In Illinois, extension specialists trained 95 returned service men in grain grading and elevator management. Similar schools were held in other States.

Freezer Lockers

At present half of our farm families rent lockers, and many have bought or are looking forward to owning home-size freezer cabinets. More than a million State and USDA bul-



letins on freezing were distributed during the year.

Forestry

Community forests have become popular. In Troy, Maine, a land-use survey showed the county agent and extension forester that many abandoned farm acres were best suited for tree planting. The town set the area aside for a community forest. Two hundred thousand trees, mostly pine and spruce, were planted. Already the forest has returned the town a new profit double the amount it could have received in taxes. It has also provided labor for many. Profits amounting to \$4,000 have been set aside to help replace a much-needed consolidated school building.

Cotton

At present 45 percent of the cotton grown is in one-variety communities. In Texas the 337 communities that adopted one variety had an average of 198 pounds. The State average production was 130 pounds. The increased yield of 68 pounds of lint per acre, plus premiums for staple and quality, resulted in an added income of 40 million dollars to these farmers.

Long on the program of Extension has been treatment of cottonseed with mercury dust to control fungus diseases. At present, approximately 80 percent of the seed is thus treated.

Seed

Seed improvement continued to be an important extension program. In fact, extension agronomists from 41 States, in answer to a questionnaire, listed seed improvement as one of the most important phases of their work during the year. Pasture improvement and expansion of use of forage crops were mentioned by 31 as a leading program. Nineteen also listed the use of lime and fertilizer as of major importance.

The 39 crop-improvement associations—Extension-organized in most of the States—now have 24,954 members who raise seed for certification. Certified seed boosts crop production as much as 25 percent.

State crop-improvement programs have advanced to a point where most farmers are able to get first- or second-generation seed from certified

fields for planting. In only a few crops is that impossible.

Thanks to Extension's crop-improvement programs, grain production of our Nation reached a production point where we had millions of tons to spare to feed starving nations during 1946.

The Extension Service continued to stress the use of hybrid corn, and in some States 100 percent of the acreage is seeded to the new and higher-producing varieties.

Illinois offers a good example of the value of seed-improvement work. In 1945, after Clinton oats were found to outyield other varieties and be resistant to the new oat disease, extension agronomists obtained 231 bushels. In cooperation with the crop-improvement association the seed was put out, and it returned 14,179 bushels. In the spring of 1946 this amount went to more than a thousand growers in 71 Illinois counties for seeding of 10 acres by each cooperator. Growers agreed not to sell the product outside the county in which it was grown. The average production was 61 bushels per acre. In the spring of 1947, Clinton oats were available in the entire State.



Dairy

There was an increase of more than 23 percent in the number of dairy herd-improvement associations operating in the United States. The total reached nearly 29,000 groups. Only a scarcity of trained supervisors prevented further expansion.

In Wisconsin, extension dairy specialists helped one plant solve a quality problem which allowed the concern to spread \$370,000 in added income to 900 dairy patrons. This amounted to more than \$400 per farmer.

Eighty-four dairy specialists from 44 States attended 5-day conferences at the Beltsville, Md., Experimental Farm to study research there in the spring of 1947.

Insects

Extension Service recommendations in Pennsylvania resulted in 6 million

dollars net gain to producers of 138,000 acres of potatoes, who used the DDT-application program.

Plant Diseases

Increased yield due to seed treatment of wheat, corn, oats, flax, and barley in Minnesota during the past year has been estimated at 22 million bushels. Treatment of seed wheat against disease in Kansas alone brought estimated benefits of more than 30 million dollars in 1946.

Several years ago, extension workers in Colorado inaugurated an intensive campaign to control stinking smut of wheat. Now 75 percent of the wheat growers practice the control methods, and losses have been cut materially.

Through the use of peanut seed treatment, North Carolina growers increased their profits by 1½ million dollars. Treatment of sugar beet seeds in Colorado resulted in a 10-percent increase in production and helped materially to fill the Nation's near-empty sugar bowl during 1946.

Machinery

County agents assisted farmers with 600,000 machinery problems. Half that number of farmers attended maintenance and repair schools. In Kansas, 8,800 farmers in 51 counties attended these farm machinery schools. In New York, extension workers helped 24,000 farmers with machinery meetings and service calls.

Work With Negroes

Under Bankhead-Flannagan appropriations, 71 additional Negro county agricultural agents and 110 home demonstration agents were employed since July 1, 1945. To help orient them, a south-wide workshop and regional conferences were held for Negro supervisors at two Negro land-grant colleges. These supervisors then held workshops for the agents.

In 42 counties in North Carolina where Negro county agents are employed, there are more than 44,000 Negro farm families. Extension personnel aided 28,000 . . . nearly two-thirds of the total . . . in improving the family food supply.

In Alachua County, Fla., the program featured health and sanitation. Thousands of families screened their

houses and porches and improved their sewage disposal and water supply systems. Through encouragement of their agents, 700 Negroes attended X-ray clinics to be examined for tuberculosis.

In Union County, Arkansas, 568 Negro families improved their home grounds with fences, walks, and drives. Negro farm women and 4-H Club girls canned more than 30 million quarts of food.

Pennsylvania pictures exhibited

An exhibit of 27 enlarged photographs of pleasing scenes from rural Pennsylvania, all of them the work of Dr. George F. Johnson, agricultural extension visual aids specialist of the Pennsylvania State College, was shown in the Institute of Popular Science, Buhl Planetarium, Pittsburgh, for several weeks in the winter.

The prints depicted the diversity of the State's agriculture, with emphasis on scientific methods and conservation of natural resources and suggesting an increasing trend toward mechanization on the farm. Many different aspects of farming and homemaking were included.

Subjects ranged from livestock and poultry to field crops, orchards in bloom, and farm ponds in use for winter recreation. Some of them portrayed contour strip-cropping layouts in intriguing array and helped to explain how these practices, as advocated by the Agricultural Extension Service, are helping solve the problems of soil erosion.

One print of a rolling countryside, captioned "Pattern for a Better Agriculture," won first prize in a 1946 Nation-wide photographic contest conducted by the American Association of Agricultural College Editors.

Leadership school

Organization into 8 typical clubs of all the 184 delegates attending Pennsylvania's eighteenth annual leadership school proved an effective way of teaching. The theme of the school was Learning to Live, and each of the club groups elected officers and planned and put on 3 afternoon meetings.

4-H broadcasts boost enrollment

Regular radio programs planned and put on by the 4-H young folks prove effective education and a stimulation to growth.

Arkansas 4-H Club members are taking to the air and liking it. Radio programs, some of them even emceed by the 4-H'ers themselves, are proving an effective stimulant to the club program.

County and Home Demonstration Agents John Cavender and Mary Britzman started the 4-H program idea back in the summer a year ago when a 4-H Club first appeared over Station KBTM, in Jonesboro. Since that June day, it has been a public service feature of the 250-watt station every Saturday afternoon—except during football season. The agents made out a schedule, allotting each of the 22 clubs the responsibility for preparing and presenting the 15-minute broadcast on a certain date. When all club members had had a chance before the mike, the second series of programs got under way with even greater success, due, no doubt, to the fact that the 4-H'ers had been listening and planning.

Before the program had run a year, results could be seen. Membership had increased substantially, and requests were coming in for organization of new clubs. Club members were gaining poise through this opportunity to demonstrate their talent.

The Craighead County agent calls radio "possibly the most effective means of developing active leaders in club work." Most of the clubs now have outstanding leaders, some of them teachers, who help develop the programs. "This is one part of our 4-H Club program that the school teachers take a definite interest in," Mr. Cavender says. But responsibility for actually working up the material belongs to the club boys and girls themselves.

When another 250-watt station began operation in neighboring Greene County, Extension Agents E. N. Sanders and Mrs. Dora Stubblefield borrowed Cavender's idea, with one exception. Cavender had always rehearsed the program with the club members and had appeared on the air as master of ceremonies, but the Greene County agents made theirs an

all 4-H show, with no adult voices. They do not even go to the studios of KDRS in Paragould but leave the local leaders in charge of maintaining order and arriving on time.

This fall the 4-H radio idea spread to Boone County, where Jimmy Jobes of Station KHOZ, Harrison; County Agent Roy Keeling; and Home Demonstration Agent Mrs. Johnnie Horton put their heads together in mapping out what they are certain will become one of the finest educational programs on the local station.

That it must be educational rather than recreational, they agree, although this does not mean that no musical or talent numbers can be included. These shall simply be minor to the primary purpose of telling the listening public how Boone County farm boys and girls are learning—by doing—the best farm and home practices.

Although these three got in a huddle, it is the County 4-H Council's project. The officers came to Harrison from Lead Hill, Valley Springs, and Geyer to talk it over in the county extension office before anything was promised the station. They felt sure their fellow club members would like the idea, but there were some prob-

lems. Could the members from Lead Hill, for instance, get to Harrison when time came for them to present the program? It's a long way, and the members are widely scattered. They'd like to have transportation, the Lead Hill delegate explained. The school bus? Good idea, but you'd have to sell the school board on it. He promised he'd get the other club members to talk it up to their parents and teachers. The hour for the broadcast couldn't be too early or too late in the day, though, or they could not make it.

Another wondered whom his group would get to help supervise the program. Would the leader have time, or could the teacher be talked into giving time from classes?

After they had threshed out these and similar questions, the 4-H'ers appointed a committee to investigate the matter more closely . . . to see Mr. Jobes, of the radio station, and work out a time not only when clubs could give the program but when the rest of the 4-H'ers in the county could listen. But their enthusiasm for the program was without question.

At the same time in adjoining Newton County, also served by KHOZ, County Agent C. D. Lentz and Home Demonstration Agent Addie Barlow prepared to use the Harrison station once a month—probably on the station's farm program or on the weekly "Farm Hour" program of Keeling and Mrs. Horton so they could take ad-

The Egypt 4-H Club has its chance over the local station, marking the end of the first series of 15-minute 4-H radio broadcasts presented by the 22 clubs of Craighead County, Ark.



vantage of an already established farm audience. The first program the Newton County agents worked up was a "4-H Club meeting of the air," having a club put on in briefed form a typical meeting.

Other extension agents are catching the enthusiasm and are considering similar programs on their local stations. A 4-H radio program seems to be the answer, especially for agents who feel they are already spending all the time they themselves can spare on their regular farm and home broadcasts yet are being offered additional time, perhaps by a second station, to promote their county work.

From swords to plowshares

Some of them are new to the business of farming. Some of them are not only war veterans but veteran farmers. Whatever their status, for the next few years their problems will be much the same. They will have the same difficulties, the same adjustments to make.

Realizing this, G. B. Allison and R. E. Nichols, farm agent and assistant farm agent for Rockbridge County, Va., have organized a farmer's club—just for ex-GI's.

And the veterans themselves are 100 percent cooperative about the project. Since the first meeting last September, where 28 or approximately 80 percent of the eligible GI's joined, the membership has vaulted to 43.

Some of the objectives of the club, as outlined by Agent Allison, are to keep the veteran posted on recent developments in scientific farming as made available by the Extension Service, to assure him a high standard of living, and to keep him informed on what agencies can help him.

More recent attempts have been made through the club to enlist several veterans on smaller farms to go into the custom-operated machinery field. There is a shortage of pick-up balers, combines, lime and fertilizer spreaders, and other farm machinery that might be alleviated by such group cooperation. Work has also been done in arranging partnership between the veteran and his family and in helping solve farm-management problems.

Leadership institute meets a need

HARRY WHITTEN, Farm Labor Information Assistant, Oregon

■ Rural pastors who attended the second annual Leadership Institute for Town and Country Churches, held July 7-11 at Oregon State College, Corvallis, found it unique in that both Catholic and Protestant churches were represented. At the final session members voted unanimously to hold another institute July 12-16, 1948.

The institute attracted an attendance of 41 rural pastors representing 11 different denominations. They came from small towns in 12 Oregon counties. Also present were 78 lay church leaders, making a total attendance of 119.

Purpose of the institute, as stated by William L. Teutsch, assistant director of the Oregon Cooperative Extension Service, was "to increase the effectiveness of the rural church in raising the level of life in the rural community by reaching the people."

A high light of the institute was a survey of a typical community, to acquaint members with survey methods applicable to their home communities. Monroe, Oreg., is a village of 311 people in the center of a mixed farming and lumbering region. The field trip to Monroe was led by Dr. Glenn A. Bakkum, head of the sociology department and teacher of a rural sociology class at Oregon State College. After conferences with such representative citizens as the local banker, real estate agent, pastors, high school teachers, high school students, and housewives, the institute members felt they had gained a real insight into the needs of Monroe.

The interdenominational feature of the institute attracted widespread and favorable comment. "In attending various rural life conferences in the Midwest and Upper Midwest, this is the first institute of which I have known that is truly and officially interdenominational," said Father Arno Gustin, O. S. B., faculty member of St. John's University, Minn., who was one of the institute leaders.

"It seems to me that this is one of the most strategic and vital programs of its sort in the State," wrote Chester W. Hamblin, president of the Oregon Council of Churches. "I do not know

of another program where the Catholics and Protestants and all the forces of a community unite in such a way as they do in this institute."

Topics considered during the 4 days the institute was in session included the challenge of the rural church, the art of leadership, rural church leadership in religious education, the rural school, use of visual aids in religious education, and opportunities for rural youth in rural youth organizations.

It was decided to devote the program next year to the three major fields of religious education, science of agriculture and homemaking, and the social sciences. Those in attendance felt that 4 days was the right length of time for the institute.

They also decided to continue the institute under the present four sponsoring groups, the Oregon Council of Churches, the Archdiocese of Portland in Oregon, the Home Missions Council of North America, Inc., and Oregon State College. Dr. Mark Rich, New York City, secretary of Town and Country Work for the Baptist Home Missions Society, represented the Home Missions Council of North America.

Summing up the institute, Mr. Teutsch said: "The spirit of this institute has been better than last year. Catholics and Protestants have come together, and we have found that there is a great area in which we can work together toward a common goal . . . Out of acquaintance and understanding of common objectives has come greater mutual confidence."

Oregon State College made its facilities available to members of the institute. Accommodations were provided in the college dormitories during the 4 days the institute was in session. Technical specialists of the college were available for individual consultations on such matters as church landscaping, dairy management, rural youth organization, radio programs, and visual aids.

Held as a feature of the second annual leadership institute for town and country churches at OSC, July 7-11, was a field trip to Monroe to survey a typical rural community.

We Study Our Job

Where do farmers get information?

■ Farmers of 4 States polled recently give their opinions on where they receive helpful information on farming.

When Vermont farmers were asked where they usually get agricultural information, 48 percent mentioned farm papers and magazines; 34 percent mentioned various Extension Service-Farm Bureau contacts (many farmers do not distinguish between the 2 organizations); 21 percent mentioned friends and neighbors; 11 percent said they originate their own ideas; 6 percent mentioned radio; 4 percent mentioned government programs other than Extension.

In the Vermont study some farmers in every county were interviewed. Four-fifths of the 369 farmers interviewed knew about the county agent; a little more than half reported having had some dealings with him. All of the farmers with whom the agent had had dealings, and about 8 out of 10 who only knew about him, reported getting ideas from him. More than 8 in 10 farmers who attributed ideas to the county agent said they had used or intended to use the information.

Over 9 in every 10 farmers interviewed had farm papers and magazines, daily or weekly newspapers, and a radio. More than 8 in 10 of those who got farm papers and magazines said they received ideas from them.

Almost 7 in 10 farmers considered the Extension Service the best medium through which to channel information to farmers. Middle-aged farmers mentioned the Extension Service as a source of ideas much more often than young or old farmers.

Extension Service contacts were more frequently mentioned by the upper educational groups. Half of the college-trained farmers mentioned Extension contacts, compared with 3 in 10 of the grade-school group. On the other hand, more of the grade-school group (27 percent) said their

ideas came from friends and neighbors. Only 12 percent of the high school and 17 percent of the college farmers credited their ideas to this indirect spread of influence.

Over one-third of grade school farmers and two-thirds of those with high school or college training mentioned farm papers and magazines as their usual source of information. Fewer farmers in the college group said they originate their own ideas.

More details of this study are given in a report, "THE EXTENSION SERVICE IN VERMONT, PART ONE: FARMERS AND THE EXTENSION SERVICE, JULY 1947," put out by the Bureau of Agricultural Economics, who made the study with the Vermont Extension Service. PART TWO, "FARM WOMEN AND THE EXTENSION SERVICE," gives the other half of the Vermont Extension story.

Recently in Alabama 665 farmers in 6 counties were surveyed. The average or typical farmer reported using 23 ideas about improved farming practices which he had received through 10 different means of communication.

One-fourth of the ideas used by the farmers came from neighbors and friends; 38 percent came to them in print. Farm magazines (14 percent), newspapers (13 percent), and farm bulletins (11 percent) were the chief carriers of ideas in print.

About 10 percent of the ideas used were attributed to radio. More than 86 percent of the farmers said they own radios. Forty-five percent listen mostly to night programs, 33 percent to morning programs, and 22 percent favor the noon hour. Among the most popular radio programs listed by the farmers were: The National Farm and Home Hour, news broadcasts, and farm and market reports.

The farmers attributed 21 percent of the ideas used to different meetings attended (meetings called by county agents, vocational teachers, and Farm Bureau leaders); farm meetings 10 percent, demonstration meetings 7 percent, and farm training schools 4 percent.

The Alabama study shows that the number of ideas farmers use increases consistently with the amount of their education. The more education a farmer has, the more ideas he gets and uses from bulletins and circular letters. Of the Alabama farmers interviewed, those with college education used 70 percent more ideas than those with little education. The age of a farmer seemed to have little to do with the number of ideas he used.

The study also brings out that the number of ideas farmers use increases quite consistently with the size of farm. Farmers with large farms use 45 percent more ideas than those with small farms.

More information on "HOW ALABAMA FARMERS GET AGRICULTURAL INFORMATION" is given in a report of this communications survey, published at Auburn, Alabama, August 1947. The survey was directed by Robert Leigh, Assistant Director, Research Interpretation Council, Alabama Polytechnic Institute.

Michigan and New York Farmers Polled

A survey made recently in Eaton County, Mich., shows that farmers there rely on a number of sources for information on farming. A careful sampling was made of full-time farmers whose holdings average 152 acres. The county average in 1945 was 103 acres.

When farmers were asked where they obtained useful information about farming they gave these 9 sources:

| | Percentage of farmers |
|---|-----------------------|
| Radio (mostly weather forecasts or market reports) ----- | 87 |
| Farm journals ----- | 83 |
| Neighbors ----- | 82 |
| Local newspapers ----- | 78 |
| Bulletins from Michigan State College ----- | 61 |
| Calling at office of county agricultural agent ----- | 52 |
| Conversation with teacher of vocational agriculture ----- | 28 |
| Attending demonstrations sponsored by Extension Service ----- | 26 |
| Calling county agricultural agent on telephone ----- | 10 |

This is one of a series of studies of the Extension Service made by the Section of Sociology and Anthropology of the Experiment Station, by Professor Charles Hoffer. Details are given in Special Bulletin 338, Social Organization in Relation to Extension Service, in Eaton County, Mich., issued by Michigan State College, East Lansing, Mich.

Farmers interviewed in Cortland and Tioga Counties, N. Y., were asked where they received "the most prac-

tical help and information about farm operations." In both counties, farm magazines headed the list; second choice, farm meetings; radio, third; State and Federal bulletins, fourth; newspapers, fifth; and commercial literature, sixth.

The survey also brings out that two-thirds of the farmers interviewed listened to farm radio programs regularly. This study was made in 1947 by American Agriculturist Foundation, Ithaca, N. Y.

During the year just past

(Continued from page 145)

Summer schools in 9 land-grant colleges reported larger enrollments and better courses to meet the needs of practicing agents. Credit courses in extension organization and methods were offered in 28 land-grant colleges.

Many colleges have committees studying changes needed in training requirements for extension workers. The Secretary of Agriculture and the president of the American Association of Land-Grant Colleges and Universities recently appointed a joint land-grant college and USDA committee to study extension policies and programs in view of present-day needs.

What It Costs

The total expenditure for the Cooperative Extension Service during the past fiscal year was not quite 54 million dollars. Slightly more than half of the money comes from Federal sources—appropriated by Congress. The remaining funds come from the State, county, and local organizations.

Sixty-nine cents out of every dollar was spent within the 3,000 counties of the United States. Twenty-nine cents of each dollar went to finance State staffs, travel, publication of bulletins and folders and preparation of tools used by county workers in carrying on their educational program.

Only 2 cents of every dollar was spent by the Federal Service. This includes the costs of some educational materials used by State and county workers.

County staff workers have had an average of 25 percent increase in salaries in the past 3 years. This has helped materially in holding expe-

rienced personnel, but the average county agricultural agent during the past year was paid \$3,590. The average home demonstration agent earned \$2,745.

Passage of the Bankhead-Flannagan Act in June 1945 paved the way for broadening extension activities. This was especially true on the county level where new demands for service continue to increase. The 8½-million-dollar increase in funds made available under this act for use during the past 2 years permitted the addition of 2,113 new county workers and supervisors.

With these funds, 138 county agents, 763 assistant county agents, and 71 Negro county agents were employed. Assistant county agents will assist with youth work in many counties.

For the women's work, 219 county and 293 assistant home demonstration agents, and 110 Negro home demonstration agents were added. The total number of exclusive 4-H Club agents added in the counties numbered 231. Thirty assistant county 4-H Club agents were also employed.

More women workers would have been employed if qualified personnel had been available at salaries which could be offered. The various States have matched the Bankhead-Flannagan funds dollar for dollar. Local governments, State legislatures, and land-grant colleges continue to obtain increased funds for extension work. This is an indication that the people within the States are favorable to such appropriations. Some States have been able to get appropriations

in excess of the amount needed to match Federal funds available for extension work.

County workers spent a greater part of their time in 1946 with youth work and 4-H Club programs than in previous years. Surveys show 31.4 percent of the county workers' time was spent with youth in 1945 and 34.2 percent on youth work in 1946.

■ Using the wartime "block" system, the city of Sheridan, Wyo., waged a campaign against that disease-carrying marauder—the fly.

Under this system, reports Sheridan County Agricultural Agent Pete Jensen, who furnished the necessary educational and informational material supplied by the Wyoming Agricultural Extension Service, one person in each block directed and was responsible for an effective fly-control campaign in that block.

Folk festival

The first South Dakota folk pageant, given at the State fair by home demonstration clubs, included Norwegian, Czech, Welsh, and American numbers.

Eight couples of the Sons of Norway dance group gave "Per Spelman," a singing dance, and danced a Norwegian schottische.

The Beseda, a Czech national dance, was given in national costume by a group from Tabor and Tyndall.

A singer from Buffalo sang Welsh songs. From Deadwood came a group of square dancers from the Northern Hills to take part in the program.

Soloists and actors in the musical pageant, "Music Wherever She Goes," were home demonstration club members from all parts of South Dakota.

■ 4-H Club members from 14 northeast North Dakota counties took part in a livestock marketing event in Grand Forks, October 31 and November 1. The young folks saw grading demonstrations; followed animals from the unloading chutes through all marketing channels; went through the packing plant, viewing carcasses coming from different grades of cattle, sheep, and hogs; saw actual grading and pricing of 4-H animals, and a demonstration of diseases as found by inspectors at packing plants. Only members enrolled and completing 1947 livestock club projects were eligible.

Consumption practices as program finders

PROF. CLEO FITZSIMMONS, Head, Department of Home Management, School of Home Economics, Purdue University, formerly of Illinois, and DR. NELLIE L. PERKINS, Professor of Home Economics, University of Illinois

■ A knowledge of the current consumption patterns of rural families is needed by State and county extension workers when they establish goals and measure the results of their programs. "Consumption" means the utilization of commodities and services directly in the satisfaction of wants. The "pattern of consumption" includes practices followed, specific goods enjoyed, and the manner and combination in which they are used to satisfy the families' wants in a given period of time.

A consumption pattern is therefore significant because it indicates the way of living considered desirable by individuals or a group. To be included as part of a group pattern, a practice should be followed by at least half of the members of that group. The larger the proportion of the families in a community or group in agreement on a good or a bad practice, the more important each becomes in the group pattern.

As a consumption pattern includes all types of commodities and services in use, inadequacies are revealed when these are noticeably inferior to a standard known to the extension workers to be attainable by cooperators with the resources available to them, e. g., a diet limited to corn bread, pork, and potatoes when fruits, milk, and fresh vegetables are possible. Also dissatisfaction expressed with some part of the consumption pattern offers an important opportunity for the extension program, e. g., as with the absence of storage provisions in many of the houses built 50 years ago so frequently expressed by homemakers.

Study of the consumption pattern of 50 farm families in a prosperous area of Illinois brought out a range of valuable information for the direction of an extension program for this group.

In the area of management two facts of significance regarding work

schedules appeared. (1) The scheduling of weekly homemaking tasks is largely dependent upon laundering practices of the household. This is the "big job" of the week, and although daily tasks are worked in around it, weekly activities are scheduled so that laundering has first place. (2) In families having an automatic washer and a number of small children, laundering is frequently included as a daily task with consequent revisions in the family's work schedule.

It was also apparent that the way time is used for specific consumption activities among these farm families is the result of an informal kind of planning. "Peaks" of consumption appear at certain fixed periods of the day—as at meal times. Consumption plans, however, generally seem to be based upon business demands and the minimum essentials for living rather than upon a way of living desired by members of the family. An extension program might remedy such a situation by placing emphasis upon goals for living as well as for working.

Money Management

Among these families money management was often found to be shared by husband and wife. They divided the responsibility, each taking the lead in particular aspects of management and expenditure. Forty percent of the wives help plan the farm business. Forty-eight percent of the families were saving, paying, or had recently finished paying for a farm.

Patterns for owner and nonowner families were analyzed. Decisions to borrow money were made almost exclusively by nonowner husbands, whereas among the owners husbands and wives shared this decision in 40 percent of the cases. Wives generally had access to the checking accounts, and a joint account was the usual arrangement. Husband and wife also share responsibility for the paying of

bills. Usually the wife purchases the food, her own clothing, and most of the children's. The husband usually buys his clothing—with the exception of work clothes which his wife frequently buys for him.

School children are usually given an allowance, but preschool children are given money only as they want and ask for it. The young people of high-school age and beyond frequently earn their money by work performed regularly on the farm. It was customary for the children to decide how their money was to be spent, although they often consulted with one or both parents.

On the whole, money management seemed highly democratic. However, some inadequacy was revealed. Most of the husbands and many of the wives held property in one name only. In addition, the majority reported that they had not made wills regarding disposal of their property. This revealed an area in which information or education was urgently needed.

Housing

Reported dissatisfactions with housing provisions disclosed numerous fields in which extension programs could be useful. Twenty-five percent of the complaints had to do with the kitchen—inconvenience, inadequate storage, and size being most frequently mentioned. Storage in other areas of the house was also frequently unsatisfactory. Space for storage was available in most of the farmhouses, but it was poorly located in relation to work centers. Ninety-six percent of the homes had electricity, but the outlets were frequently too few and poorly placed. There were comfortable chairs for reading, but lights were not accessible for them. Eighty-six percent had water under pressure, but drainage and sewage disposal were inadequate in some instances.

Use of Living Resources

The problem of economical use of living resources appeared frequently. There was no concept of the use of bedrooms for living activities other than sleeping, e. g., as studies for children with home work to do. For families with several children of school age quiet places to study are essential. The majority of the families ate all of their meals in the kitchen except

on Sunday, perhaps, or when there were guests. The practice saves work for the homemaker, but frequently she was uncertain and apologetic about it. Probably information concerning basic requirements for resource use and acceptance of the practice as a labor-saving device would lead to happier acceptance and greater satisfaction from the practice.

Saving "good" commodities for company use only while the family used inferior china, silver, and furnishings, especially for "every day," was very common. This practice holds over in the group from need for conservation of such goods. Whether or not it is necessary still should be re-examined.

One homemaker in the Illinois group had worked out an answer to the problem. She said: "I use the same dishes for every day and for company. I bought an open pattern that I like and enjoy and did not want to put it away. It was not too expensive for us, and I know I get more pleasure from it in daily use than put away in a cupboard." There is no question that farm families need extra china, glass, and silver. Visiting and having company for dinner are important forms of recreation for the rural family, and a supply beyond the needs of the family itself is a necessary part of the accepted pattern.

Clothing

There was remarkable agreement upon a consumption pattern in the use of clothing. Most of the good clothes—coats, dresses, suits, and hats—are bought ready made. House dresses, aprons, and sleeping garments are frequently made at home. All of the women do mending and patching, and those who have small children do sewing for them. Much of this involves the making over of handed-down garments. This practice the families accept, but it is not satisfactory to some of the children. Clothing specialists should find a challenge here.

As a whole, the patterns in consumption of foods were good—a satisfactory diet being maintained. The area of food dislikes, however, suggested need for education concerning nutrients and cookery methods. The largest number expressed dislikes for

vegetables as a group, carrots, onions, cabbage, tomatoes, turnips, spinach, and "all vegetables" being mentioned. Dislikes in the protein group included liver, heart, mutton, and "meat substitutes."

Household Tasks

Finally, the list of dislikes in the area of tasks which homemakers must perform suggested need for help with work methods and use of equipment. Thirty-eight percent of the women indicated that they disliked some form of house cleaning. Thirty-two percent said they liked these tasks. Ironing was among the tasks disliked, but almost as many people indicated that they liked to iron. Four percent said that before they used a mangle they "hated to iron because there was so much of it." It was apparent that whether or not a worker dislikes her task may be related to her skill and the nature of her equipment for performing it. Probably few tasks are disliked for themselves alone, a fact which presents a challenge for the study of improved methods and desirable equipment for doing all household work.

Summary

A careful survey of the ways in which goods are used by any group of people should reveal problems connected with that use and the enjoyment of results. The study can be made by cooperators and extension workers acting together. The wants already felt and inadequacies—perhaps but dimly realized up to the point of making the study—will serve as the basis for a worth-while program.

A good meeting

The county agents in Erie County, N. Y., have some real time- and temper-saving ideas on preparing for good meetings. They have two boxes about 8 by 8 inches and long enough to accommodate a roll blackboard. In these boxes are extension cords, two kinds of electric plugs, chalk and eraser, Scotch tape, thumb tacks, hammer, screw driver, and an assortment of small nails and tacks, and of course the roll blackboard. All right there when you need them.

To train livestock judges

Pennsylvania farm boys and girls enrolled in 4-H livestock and dairy work carried on a continuing program of training in judging which many of them put to good use in 4-H Club Week contests last August and on their farms as future livestock breeders.

Eight district 1-day schools were held in as many different sections of the State. Supplementing these, practice judging contests within the counties were scheduled by the different county agricultural agents and club local leaders.

Increased interest shown by club members in this phase of their educational program reflects, State club leaders say, increasing activity in the whole 4-H program which this year has an all-time high enrollment in a number of departments, including both dairying and general livestock.

The judging schools were all on farms where boys and girls had opportunity to work on different classes of dairy animals, horses, sheep, hogs, and beef cattle.

The significance of this training, as observed by J. M. Fry, State Director of the Agricultural Extension Service, is that "it not only gives our farm boys and girls poise, experience, and confidence in handling and judging these animals, but also teaches them the types of animals most desirable to breed, what kinds to buy, and a discernment of values that means satisfaction in buying or selling."

Legal lingo

A quiz game called "Legal Lingo" has been used successfully to open Nebraska home demonstration meetings on family economics. The quiz includes contracts, writing checks, the value of making a will, and such other business matters.

Members of the Senior 4-H Club of Los Angeles County, Calif., studied the marketing of poultry and eggs and milk and dairy products from the producer's viewpoint. They also studied the buying of clothing and textiles from the consumer's standpoint on a marketing tour last April 12.

Among Ourselves

■ ROBERT G. WHITE has been named extension agricultural engineer in Wyoming.

He was born at Bosworth, Mo., and reared on a farm in that area. He attended Kansas State College at Manhattan and received his B. S. degree in agricultural engineering in 1934.

Immediately after graduation he joined the Soil Conservation Service as a field engineer and worked at Bethany, Mo., for 5 years in that capacity. Then he was transferred to Milwaukee, Wis., as head of the regional records and statistics section until 1941.

At that time, Mr. White accepted a graduate assistantship with the University of Georgia and received his M. S. degree in agricultural engineering the following year.

For the next 2 years he was associated with Kansas State College as extension agricultural engineer. In this capacity he became thoroughly familiar with problems and systems of irrigation.

Then, in 1944, White again joined the Soil Conservation Service as supervisor of hydrologic research at East Lansing, Mich., and has held that position until he accepted his recent Wyoming appointment.

■ EUREKA NITZKOWSKI, the first home demonstration agent in Luzerne County, the heart of Pennsylvania's rich anthracite coal fields, retired after 26 years and 2 months of service to rural families.

In June 1921 Miss Nitzkowski, who has become known as "Nitzie" throughout the State, came to State College, Pa., to get her first assignment with the agricultural and home economics extension service. She was to go to Wilkes-Barre to launch the new educational program in that area and was to direct the adult and 4-H home economics extension programs, not only in Luzerne County but also in adjoining Wyoming County. "Nitzie" worked in both counties 10 years, then was assigned to the one county, Luzerne.

The home economics extension program grew slowly, then expanded under her direction and guidance until homemakers throughout the counties adopted many new practices that improved their homemaking and family living. "Nitzie" had the privilege of seeing some of these practices handed down from mother to daughter as well as teaching the second generation still newer methods in homemaking.

"Nitzie" was born on a farm near Mankato, Minn., and got her early education in the public schools of that city. She graduated from the State Normal School in Mankato and then taught in one-room rural schools in Minnesota, being the first normal school graduate to teach in rural schools in that State. After 4 years of rural school teaching, she went to Stout Institute, Menomonie, Wis., and after graduation she taught 3 years in an industrial high school in Montana, then taught 3 years in the State Normal College in Montana. At the end of 10 years of teaching, "Nitzie" studied at Columbia University and obtained her bachelor of science degree with a major in home economics. She then gave up her formal school teaching and went to Pennsylvania.

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On her sabbatical leave in 1937, "Nitzie" did graduate work at the University of Minnesota and also traveled and observed extension work in the Western States.

Maintaining the interest in arts and crafts she had in college, "Nitzie" became an ardent collector and a true patron of beautiful antiques, glass and furniture her specialties. Her own interest in antiques helped to influence people in the counties to appreciate the antiques in their homes.

"Nitzie" is a member of and a past chapter chief of Epsilon Sigma Phi, national honorary extension fraternity, a member of and past president of the Quota Club—a business and professional woman's club styled after Rotary—in Wilkes-Barre, and a member of the Pennsylvania and the American Home Economics associations.

A recent hobby of "Nitzie's" is the painting of Pennsylvania Dutch designs on trays, plates, and furniture. She not only did painting for herself but showed women in the county how to appreciate the old original designs and how to restore them.

After more than a quarter of a century of working with rural people, helping them to improve their homemaking and family living, "Nitzie" will put some of these very same teachings into practice in her own home. She will live in Phoenix, Ariz.

■ MALCOLM MASON has been appointed to the newly created position of Indiana rural health specialist. The new assignment is made possible through the cooperation of the Indiana State Board of Health. Mr. Mason was former area supervisor for the State Board of Health, and prior to that a teacher in the Seymour Public Schools. He also taught in Sullivan and Greene County schools.

He recently completed a year of graduate work at the University of Michigan, specializing in public health. He will be associated with the State extension staff at Purdue and will work with extension workers over the State.